Mental Retardation

Definition, Classification, and Systems of Supports

10th Edition

AAMR

bility. The SEM quantifies the amount of error in a given test score. For interpretative purposes, one can be 95% confident that an individual's true score falls within ± 1.96 SEMs. The SEM for the Full-Scale IQ score is 3.2. This means that we can be 95% confident that an individual whose tested IQ is 65 has a true IQ score somewhere between roughly 59 and 71.

The manual offers evidence of validity for the proposed purposes of the test, including correlations with grades, academic achievement tests, and neurological tests. The correlation of Full-Scale IQ with various measures of academic achievement range from .57 to .74. The correlation between Full-Scale IQ and actual grades is a more modest .47. The manual does report a validation study about the use of the WISC–III in making diagnoses of mental retardation. The study suggests that individuals who were diagnosed as having mental retardation on the basis of WISC–Revised scores and adaptive behavior scores would still be diagnosed as having mental retardation on the basis of WISC–IIII scores. The WISC–III scores average about nine points lower than the WISC–Revised scores. We note that a validity study of this nature is complicated by the fact that measured intelligence is a definitional component of mental retardation.

WECHSLER ADULT INTELLIGENCE SCALE–III

Like the WISC–III, the WAIS–III derives from the work of David Wechsler. It is based on the same concept of global intelligence that pertains to the WISC–III; that is, intelligence is viewed as a multifaceted and multidetermined construct that enables an individual to comprehend and deal effectively with the world. This particular version of the adult Wechsler scale derives from the Wechsler Adult Intelligence Scale–Revised. The Matrix Reasoning subtest was added to improve the ability of the scale to test older adults (up to age 89). Matrix Reasoning replaced Object Assembly as a standard subtest.

The WAIS–III is an individually administered test that was designed to assess intelligence of individuals ranging in age from 16 years to 89 years. Like the WISC–III, the mean IQ score is 100, and the standard deviation is 15. The *SEM* was roughly 2.3 points for the Full-Scale IQ, although this varies as a function of the age group, ranging from 1.98 to 2.58. The six verbal subtests and five perceptual-motor subtests of the WAIS–III yield Verbal IQ scores, Performance IQ scores, and Full-Scale IQ scores.

The WAIS–III was standardized on 2,450 adults from the United States. Thirteen separate standardization groups were created by age classification. Within each group, the number of males and females was roughly equal (except for the 65 to 89 age group, which contained more females), and there was Census-based stratification for race or ethnicity (White, African American, Hispanic), education, and geographic region based on Census reports.

Psychometric properties of the WAIS–III compare favorably with those of the WISC–III. Average split-half reliability coefficient of the Full-Scale IQ was calculated to be .98. Test-retest reliability was .95.

The WAIS–III manual indicates that the scale may be used in diagnosing mental retardation, neuropsychological impairments, and giftedness. As evidence of the scale's usefulness in diagnosing mental retardation, the manual reports that people with mental retardation achieve low scores with minimal variability.

STANFORD-BINET–IV

Some form of the Stanford-Binet intelligence scale has been available since the early 1900s. The Stanford-Binet–IV is the fourth revision of this scale. Like earlier versions of the test, this revision is based on the notion that intelligence is a general factor, comprising a number of subfactors. In the Stanford-Binet–IV, intelligence is composed of verbal reasoning ability, quantitative reasoning ability, abstract/visual reasoning ability, and short-term memory. These are assessed via 15 subtests, 9 of which were derived from the older Stanford-Binet–L-M, and 6 of which were new with this revision.

The Stanford-Binet–IV was designed for use with individuals from the age of 2 years to adulthood. This flexibility is attributable to the use of Standard Age Scores, or derived scores from age-defined subgroups of the norming sample. Although this is a reasonable and appropriate approach, caution must be exercised for use with extreme populations. In the manual, Thorndike et al. (1986) noted that even with samples as large as 500, there were almost no cases that fell beyond three standard deviations from the mean. The implications for assessing people with mental retardation should be fairly clear: These instruments have limited ability to measure IQs below 40.

The test yields a composite IQ score with a mean of 100 and a standard deviation of 16. The *SEM* is reported to range from 1.60 for adults to 3.58 for young children. Consistent with most individualized intelligence tests, the Stanford-Binet–IV demonstrates strong Kuder-Richardson (KR) KR-20 reliabilities, ranging from .95 to .99. In the manual, Thorndike et al. (1986) noted that these values may be somewhat inflated and should be considered an upper estimate of reliability. Test-retest reliability is only slightly less strong but is not reported for the composite score.

For nonexceptional children, the Stanford-Binet–IV correlates .83 with the WISC–Revised. It correlates .80 with the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) and about .91 with the WAIS–Revised and .89 with the Kaufman Assessment Battery for Children.

CHAPTER 5
ASSESSMENT OF ADAPTIVE BEHAVIOR

Adaptive behavior **is the collection of conceptual, social, and practical skills that have been learned by people in order to function in their everyday lives.**

OVERVIEW

Adaptive behavior assessment can be useful for each of the three functions shown in Table 1.1: diagnosis, classification, and planning supports. It is important to recognize that different measures and methods of assessing adaptive behavior will have advantages and limitations, depending on the specific purposes of assessment. Assessment for diagnosis, for example, requires the use of instruments that (a) are psychometrically sound, (b) address the three areas of adaptive behavior in the definition, and (c) are normed on groups of people with and people without mental retardation. Different assessment instrument characteristics, such as fine breakdowns of skill levels or a focus on specific skill areas, may be important in determining the best methods for measuring adaptive behavior for purposes of classification or planning supports. In this chapter we focus primarily on the assessment of adaptive behavior for the purpose of diagnosing mental retardation.

According to the 2002 AAMR definition (see p. 1), a person with mental retardation has significant limitations both in intellectual functioning *and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills.* The three broad domains of adaptive behavior in the definition represent a shift from the requirement in the 1992 (Luckasson et al.) definition that a person have limitations in at least 2 of the 10 specific skill areas listed in the 1992 definition. The three broader domains of conceptual, social, and practical skills in the new definition are more consistent with the structure of existing measures and with the body of research evidence on adaptive behavior.

The 2002 definition also emphasizes the *expression,* or performance, of relevant skills, rather than the acquisition of skills. Thus it is expected that reasons for lim-

itations in adaptive skills may include (a) not knowing how to perform the skill (acquisition deficit), (b) not knowing when to use learned skills (performance deficit), or (c) other motivational factors that can affect the expression of skills (performance deficit). When an individual has limited intellectual capacity, both acquisition and performance deficits may be attributed to mental retardation. Consistent with this view, most adaptive behavior instruments measure the "skill level a person typically displays when responding to challenges in his or her environment" (Widaman & McGrew, 1996, p. 98).

ADAPTIVE BEHAVIOR AND A DIAGNOSIS OF MENTAL RETARDATION

ASSUMPTIONS ABOUT ADAPTIVE BEHAVIOR RELEVANT TO DIAGNOSIS

In this chapter we address the following assumptions about adaptive behavior that are relevant to a diagnosis of mental retardation:

- Adaptive behavior is a multidomain construct. The domains that have emerged from a long history of factor-analytic studies are consistent with a conceptual model that has three general areas of adaptive skills: conceptual, social, and practical.
- No existing measure of adaptive behavior completely measures all adaptive behavior domains. Adaptive behavior scales place different degrees of emphasis on different domains, evidenced by the number of specific behaviors selected to represent them (Thompson et al., 1999); these differences are partly responsible for variations in the specific dimensions that have emerged from factor-analytic studies.
- For a person with mental retardation, adaptive behavior limitations are generalized across domains of conceptual, social, and practical skills. Because subscale scores on adaptive behavior measures are moderately correlated, however, a generalized deficit is assumed even if the score on only one dimension meets the operational criteria of being two or more standard deviations below the mean. A score of two standard deviations below the mean on a total score from an instrument that measures conceptual, practical, and social skills will also meet the operational definition of a significant limitation in adaptive behavior.
- Some adaptive behaviors are particularly difficult to measure using a rating scale or are not contained on existing standardized instruments. Adaptive skills that may be influenced by levels of gullibility or vulnerability, for example, may be relevant to diagnosis but are not reflected in current adaptive behavior test

scores. These should still be considered in the overall diagnostic decision process and evaluated by other means. It is assumed that current efforts to develop reliable measures of these skill areas will continue.

- Low intellectual abilities may be responsible for both problems in acquiring adaptive behavior skills (acquisition deficit) and/or with the appropriate use of skills that have been learned (performance deficit).
- Assessment that provides information about typical behavior for the individual requires information that goes beyond what can be observed in a formal testing situation. However, a formal testing situation could be useful to help distinguish acquisition deficits from performance deficits for some behaviors.
- Just as standardized measures of intelligence do not fully reflect what is considered to be intellectual capacity, it is unlikely that a single standardized measure of adaptive behavior can adequately represent an individual's ability to adapt to the everyday demands of living independently. Additional information may be useful in the diagnosis of individuals whose adaptive behavior standardized scores are close to cutoff points. This information should be gathered consistent with the assumptions to the definition (see chap. 1) and the principles of clinical judgment (see chap. 6).
- Problem behavior that is "maladaptive" is not a characteristic or dimension of adaptive behavior, as conceptualized in the 2002 definition of mental retardation, although it often influences the acquisition and performance of adaptive behavior. The presence of problem behavior is not considered to be a limitation in adaptive behavior, although it may be important in the interpretation of adaptive behavior scores (i.e., in clinical judgment) for diagnosis.
- Adaptive behavior must be examined in the context of the developmental periods of infancy and early childhood, childhood and early adolescence, late adolescence, and adulthood. A continuing theme is the importance of the developmental relevance of specific skills within these adaptive areas.
- Adaptive behavior scores must be examined in the context of the individual's own culture that may influence opportunities, motivation, and performance of adaptive skills.
- Limitations in adaptive behavior should be considered in light of the four other dimensions in the 2002 framework of individual functioning (see Figure 1.1): Intellectual Abilities; Participation, Interactions, and Social Roles; Health; and Context.

CONCEPTUAL, SOCIAL, AND PRACTICAL SKILL AREAS OF ADAPTIVE BEHAVIOR

The three domains of adaptive behavior in the 2002 definition are less differentiated than the 10 skill areas that were listed in the 1992 definition, but are more consistent with the conceptual models in the literature that describe major domains of personal competence (Greenspan, 1999a; Greenspan & Driscoll, 1997; Gresham & Elliott, 1987; Thompson et al., 1999). These models are supported by many years of empirical research on the construct of adaptive behavior. This does not mean that factor-analytic studies of adaptive behavior scales have always identified exactly three domains or that the names in the 2002 definition (i.e., *conceptual, social,* and *practical*) have always been assigned to the factors that were found. The number of domains, or factors, that have emerged from factor-analytic studies, in fact, has varied across studies. The variability has been attributed to differences in the array of specific skills assessed by the scales and to the factor-analytic procedures used (Thompson et al., 1999; Widaman & McGrew, 1996). The consistency that has been found for higher order dimensions across measures has, nevertheless, been impressive and supports the three dimensions that are in the current definition (Thompson et al., 1999; Widaman & McGrew, 1996). Table 5.1 illustrates this consistency and confirms that there are existing measures that address the three dimensions of adaptive behavior.

OPERATIONAL DEFINITION OF LIMITATIONS IN ADAPTIVE BEHAVIOR

> For the diagnosis of mental retardation, significant limitations in adaptive behavior should be established through the use of standardized measures normed on the general population, including people with disabilities and people without disabilities. On these standardized measures, significant limitations in adaptive behavior are operationally defined as performance that is at least two standard deviations below the mean of either (a) one of the following three types of adaptive behavior: conceptual, social, or practical, or (b) an overall score on a standardized measure of conceptual, social, and practical skills.

A person with mental retardation is assumed to have significant limitations in multiple dimensions of adaptive behavior. In fact, mental retardation is characterized by deficits in adaptive behavior that are generalized across the domains of conceptual, practical, and social skills. Why, then, does the 2002 operational definition of significant limitations in adaptive behavior require a score of at least two standard deviations below the mean on only one domain?

TABLE 5.1
Correspondence Between Three Dimensions of Adaptive Behavior and Empirically Derived Factors on Existing Measures

Instrument	Conceptual Skills	Social Skills	Practical Skills
AAMR Adaptive Behavior Scale–School and Community (Lambert, Nihira, & Leland, 1993)	Community self-sufficiency	Personal-social responsibility	Personal self-sufficiency
Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1984)	Communication	Socialization	Daily living skills
Scales of Independent Behavior–Revised (Bruininks, Woodcock, Weatherman, & Hill, 1991)	Community living skills	Social interaction and Communication skills	Personal living skills
Comprehensive Test of Adaptive Behavior–Revised (Adams, 1999)	Language concepts and academic skills Independent living	Social skills	Self-help skills Home living

Note. All measures shown in this table are considered to have adequate psychometric properties and contain normative data on the general population. The purpose of this table is to illustrate that current adaptive behavior measures provide domain scores that represent the three dimensions of adaptive behavior skills in the 2002 AAMR definition. It is not intended to necessarily endorse these instruments or to exclude other measures that meet the guidelines for diagnosis.

It is important to note that the operational definition of a significant limitation in adaptive behavior requires performance that is at least two standard deviations below the mean on *at least one domain* or on the total score of an instrument that measures all three domains. There are two reasons for what may appear to be an overly inclusive criterion and one that might identify people who have deficits in a single, narrow area rather than the generalized adaptive skill deficit that is assumed to be present in a person with mental retardation. First, correlations among domains of adaptive behavior on standardized instruments tend to vary widely across instruments, with some instruments having low to moderate correlations and others having rather high correlations. Because correlations among domains vary widely across instruments, requiring more than one score to be two standard deviations below the mean will result in the selection of instruments having a large effect on whether a person meets the definitional criterion. By requiring a significant deficit in only one score, the effects of using different measures of adaptive behavior in a diagnosis will be minimized. Furthermore, a score of two standard deviations below the mean on one domain will have a sufficiently broad impact on individual functioning as to constitute a general deficit in adaptive behavior. If it is clear that an individual is functioning in the average or above-average range on the other two domains, clinical judgment should be used to determine whether the deficit is limited to one area of adaptive behavior and is not due to mental retardation. Second, the probability of a person having significant deficits (2 *SDs* below the mean) in two or in all three domains of adaptive behavior is extremely low compared to the probability of scoring two standard deviations or below on only one domain. In fact, simulation studies have demonstrated that the probability of a person scoring two standard deviations below the mean on more than one domain would be so low that almost no one with an IQ in the upper mental retardation range would be identified as having mental retardation (K. F. Widaman, personal communication, November 9, 2001).

Clinicians must also pay attention to the environments addressed by a measure of adaptive behavior. The examination of adaptive skills must be documented within the context of community environments typical of the individual's age peers and culture. If a scale excludes important skill areas, or focuses only on skills observed in one setting (e.g., home, school, or work), reliance on scores from a single instrument would provide a noncomprehensive view of adaptive functioning (Reschly, 1990).

TABLE 5.2
Relationships of 1992 and 2002 Adaptive Skill Areas

Adaptive Behavior Skill Areas in 2002 Definition	Representative Skills in 2002 Definition	Skill Areas Listed in 1992 Definition
Conceptual	Language Reading and writing Money concepts Self-direction	Communication Functional academics Self-direction Health and safety
Social	Interpersonal Responsibility Self-esteem Gullibility Naiveté Follows rules Obeys laws Avoids victimization	Social skills Leisure
Practical	Activities of daily living Instrumental activities of daily living Occupational skills Maintains safe environments	Self-care Home living Community use Health and safety Work

SELECTION OF ADAPTIVE BEHAVIOR MEASURES

Purpose of Assessment

The assessment of adaptive behavior can contribute to each of the different functions shown in Table 1.1: diagnosis, classification, and planning for supports. It should be understood that the characteristics of a good assessment for one function (e.g., diagnosis) are not necessarily the same as the characteristics of a good assessment for another (e.g., identifying support needs). Few instruments have the breadth, depth, and psychometric properties to be optimally useful for all purposes. Measures that provide enough detail to assist with programming may be too long to be useful for diagnostic testing, may lack standardization data, or may describe behaviors that do not usually distinguish individuals with from individuals without mental retardation (Nihira, 1999). In the past these differences may have con-

tributed to confusion about what adaptive behavior is and may have also been responsible for concerns about the relative value of adaptive measures for professional practice. Measures selected for diagnostic purposes should assess adaptive skills that can help discriminate between people with and people without mental retardation.

Technical Adequacy

Regardless of the purpose of diagnosis (e.g., service eligibility, benefits eligibility, legal eligibility), adaptive behavior should be measured with a standardized instrument that provides normative data on people without mental retardation. The fact that adaptive behavior test scores are used to determine whether a person has mental retardation should underscore the importance of selecting measures that do not violate basic technical standards. Such standards have been published by professional organizations with an interest in diagnosis of mental retardation or other disabilities (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999).

General issues in the assessment of adaptive skills derive in large part from those issues that relate to measurement in any other dimension. Therefore, concerns about validity, reliability, stability of measures, generalization, prediction, and the appropriateness of use are critical in the assessment of mental retardation. Although some available scales have been used for many years, longevity alone does not validate a test's results for diagnostic purposes. Many of the available adaptive behavior scales fall short of appropriate standards for norming (Kamphaus, 1987b) and clarity of the construct of adaptive behavior (Evans, 1991). On the other hand, several measures have been developed and tested in recent years that do meet the criteria of a good test for diagnosis. A review of these is provided at the end of this chapter.

Appropriateness of Measure for the Individual

Professionals not only must select instruments that are technically adequate, they must also be cautious to select ones designed for the particular individual or group (Reschly, 1990). The potential user must employ adaptive skill assessment instruments that are normed within community environments on individuals who are of the same age grouping as the individual being evaluated. The validity of scales normed primarily on individuals in segregated school, work, or living arrangements may be limited to contexts that are useful for programming but are not acceptable for diagnostic purposes.

Purpose of Diagnosis

Diagnosis is performed for a variety of purposes, including special education or other service-system eligibility, legal classifications, and funding. The same measure can be used for different diagnostic purposes as long as it can determine significant

deficits in adaptive behavior (i.e., 2 *SDs* from the *M* on a cognitive, social, or practical skill domain or on a total score). For example, if the Vineland Adaptive Behavior Scales or the AAMR Adaptive Behavior Scale is determined to be an appropriate measure of adaptive behavior for an individual in the diagnosis of mental retardation for special education eligibility, it should also be appropriate in the diagnosis of mental retardation for that individual for legal purposes. (Readers are cautioned, however, to confirm that the same definition is used in both situations.)

Evaluating New Instruments

Professionals are advised to remain current with the literature in the field in order to be aware of newly published instruments. At the same time, there is benefit in exercising a healthy caution toward tools that may lack documentation of their appropriateness for use with individuals who have mental retardation. Tests may use current trends and popular buzz words without demonstrating that they adhere to the standards for these concepts. The key point is that new instruments may not offer the advantage that established tools can; that is, exposure to careful professional scrutiny and the availability of a literature base on their validity. Nevertheless, new measures that report strong psychometric data should be seriously considered.

Multimethod Approaches to Measurement

As Sattler (1988) stated, "no one instrument can measure all of the relevant domains of adaptive behavior" (p. 376). Although every effort must be made to select an instrument that is appropriate for the age and status of the person being assessed, clinicians must recognize that adaptive behavior instruments are imperfect measures for distinguishing individuals with and those without mental retardation as they face the everyday demands of life. For example, information about levels of credulity and gullibility, as they affect adaptive behavior, could provide key information for a diagnosis of mental retardation. Greenspan (1999a) argued that the victimization of people with mental retardation, observed in social and economic exploitation, is "a more central (and generally more subtle) problem that goes to the heart of why people with mental retardation are considered to need the label" (p. 69). Because there are no standardized measures that assess adaptive skills related to credulity and gullibility, these characteristics should be considered in the clinical judgment of adaptive behavior limitations.

In spite of the focus on typical rather than maximal behavior, some authors have also urged that naturalistic and controlled observation be used to assess the acquisition of certain behaviors, such as economic and domestic skills (McCarver & Campbell, 1987; Taylor & Ivimey, 1982). Observations, interviews, or other methods of assessment to gather information about adaptive behavior may complement, but ordinarily should not replace, standardized measures (see chap. 6).

SELECTION OF RATERS OR THIRD-PARTY INFORMANTS

Those who use most current adaptive behavior scales to gather information about typical behavior rely primarily on the recording of information obtained from a third person who is familiar with the individual being assessed. Thus assessment typically takes the form of an interview process, with the respondent being a parent, teacher, or direct-service provider rather than from direct observation of adaptive behavior or from self-report of typical behavior (Voelker et al., 1990). It is critical that the interviewer and informant or rater fully understand the meaning of each question and response category in order to provide valid and reliable information to the clinician. It is also essential that people interviewed about someone's adaptive behavior be well-acquainted with the typical behavior of the person over an extended period of time, preferably in multiple settings. In some cases it may be necessary to obtain information from more than one informant. The consequences of scores to the rater, informant, or individual being rated should also be taken into consideration, as well as the positive or negative nature of the relationship between the rater or informant and the person being assessed (Evans & Bradley-Johnson, 1988; Harrison & Robinson, 1995; Reschly, 1990). Observations made outside the context of community environments typical of the individual's age peers and culture warrant severely reduced weight.

CLINICAL JUDGMENT

Chapter 6 contains a general discussion of clinical judgment and diagnosis. Here we address issues of clinical judgment that are specific to adaptive behavior measurement. Adaptive behavior measures can provide very useful information about the extent to which an individual responds to the demands of everyday life. Nevertheless, the interpretation of standardized adaptive behavior scores, especially in connection with assessments of intellectual ability in the diagnosis of mental retardation, requires clinical judgment involving each of the following factors.

The Individual's Physical Condition and Mental Health

Individuals who exhibit specific sensory, motor, or communicative limitations can present special difficulties for those interpreting adaptive behavior scores. For purposes of diagnosis, it is important to identify influences on levels of adaptive behavior related to physical handicaps, medical conditions, and emotional health. Evaluators must be able to distinguish limitations in adaptive behavior from problems associated with sensory, emotional, or physical conditions.

Opportunities or Experiences and Participation or Interactions

Opportunities to participate in community life, including limited opportunities resulting from emotional or physical health or residential placement, must be con-

and to assess the effects of intervention programs. Behavior domains measure personal independence and personal responsibility in daily living, including prevocational or vocational activity. The second part of the ABS–S:2 relates to problem behavior. This measure was standardized on samples composed of individuals with and those without mental retardation. Standard scores, age-equivalent scores, and percentile rank scores can be converted from raw scores on the adaptive behavior subscales and three factor scores for individuals aged 3 to 21 years. The ABS–S:2 provides norms through age 21 and includes items appropriate for school settings that may not be relevant to adult environments.

The Residential and Community version, ABS–RC:2, was developed to be appropriate for individuals through 79 years of age, but norms are not available for adults with typical functioning. Because standard scores and percentile ranks do not indicate relative standing to people without developmental disabilities, the ABS–RC:2 does not fit the psychometric criteria proposed in this 2002 manual for a diagnosis of mental retardation. It has a long history, however, of providing excellent information for planning supports and assessing change in individual functioning over time.

SCALES OF INDEPENDENT BEHAVIOR

The Scales of Independent Behavior–Revised (SIB–R) (Bruininks et al., 1991) is a component of the Woodcock-Johnson Psycho-Educational Battery and has three forms: the Full-Scale, the Short Form, and the Early Development Form. A Problem Behavior Scale is included in each form. The SIB–R provides a wide array of scores for diagnosis and planning supports. For diagnosis, scores on Social Interaction and Community Skills, Personal Living Skills, and Community Living Skills are consistent with the social, practical, and conceptual domains in the current definition. A fourth SIB domain score, Motor Skills, can contribute information about the Health dimension in the conceptual model of individual functioning in Figure 1.1.

The SIB manual addresses many of the issues that make the interpretation of adaptive behavior scores especially challenging in the diagnosis of mental retardation, including: physical disability, use of adaptive equipment, alternative communication methods, tasks no longer age-appropriate, partial performance of multipart tasks, and lack of opportunity due to environment or safety and cognitive ability to understand social expectations for performing behaviors. Guidelines regarding these special conditions suggest that individuals should be rated according to what they actually do (or would do if age-appropriate) rather than giving "credit" for lack of opportunity, overprotective environments, adaptive equipment, or physical disability or denying credit if tasks are performed well with the assistance of adaptive equipment and/or medication (Hill, 1999). The Checklist of Adaptive Living Skills (CALS) (Bruininks & Moreau, 1991) is part of the same assessment

Sociocultural Considerations

A diagnosis of mental retardation must take into account the sociocultural context of the individual. The key challenges are to identify sociocultural circumstances that might differ from those of the norm group, to examine the individual's performance in relation to others of the same age and culture, and to evaluate the expectations and opportunities of the individual's culture that might influence an adaptive behavior score. Behavioral expectations may differ across cultural groups, along with education and training in adaptive skills. Assessments, therefore, must consider relevant ethnic or cultural factors.

Even if a standardization sample matches the governmental census proportion (which is psychometrically appropriate), this does not necessarily mean that norms applied to a person from that ethnic group would adequately reflect typical expectations for that person (Tassé & Craig, 1999). This issue, which some believe is not relevant for basic behaviors contained on adaptive behavior scales (e.g., individuals in all ethnic or socioeconomic groups are expected to perform daily living skills with increasing independence as they get older), is getting more attention in recent years. Because it would be impossible to obtain many standardization samples to represent all cultural variations in the United States, this may need to be dealt with in the clinical interpretation of scores rather than the actual scoring procedure, as Mercer suggested 30 years ago (Mercer, 1973).

MEASURES OF ADAPTIVE BEHAVIOR

There has never been a shortage of adaptive behavior scales. Meyers, Nihira, and Zetlin (1979) reported the existence of more than 200 measures of adaptive behavior. In spite of the numbers, however, none of these measures was normed on nonhandicapped samples, and most could not demonstrate sufficient evidence of reliability and validity to justify use in diagnosis. Since then, the attention to adaptive behavior measurement has resulted in the development and refinement of several measures that have excellent psychometric properties, including impressive norms on samples of people with and people without disabilities (Bruininks, McGrew, & Maruyama, 1988; McGrew & Bruininks, 1989; Thompson et al., 1999; Widaman, Borthwick-Duffy, & Little, 1991; Widaman & McGrew, 1996).

Best practices in the assessment of adaptive behavior should always be considered in the selection of a measure for a specific individual. Manuals containing best practices are published by the National Association of School Psychologists, the American Psychological Association, and other professional organizations, members of which assess adaptive behavior for purposes of diagnosis. In addition, users must follow the administration, scoring, and interpretation instructions found in the measure's standardization manual.

The information that follows about specific instruments is intended to assist

readers as they develop procedures consistent with the current conceptualization and operational definition of mental retardation. Its purpose is not to endorse or recommend that specific instruments be used for the assessment of adaptive skills in the diagnostic process to the exclusion of others. In fact, there may be other instruments in existence, or under development or revision, that also meet the criteria for a good diagnostic measure of adaptive behavior. The descriptions that follow are provided to illustrate the features of adaptive behavior scales that are important in the selection of a measure for a particular individual. The instruments described include the revised Vineland Adaptive Behavior Scales (Sparrow et al., 1984), the AAMR Adaptive Behavior Scale–School and Community (Lambert, Nihira, & Leland, 1993), the Scales of Independent Behavior–Revised (Bruininks, Woodcock, Weatherman, & Hill, 1991), the Comprehensive Test of Adaptive Behavior–Revised (Adams, 1999), and the Adaptive Behavior Assessment Scale (Harrison & Oakland, 2000).

VINELAND ADAPTIVE BEHAVIOR SCALES

The revised Vineland Adaptive Behavior Scales (VABS) (Sparrow et al., 1984) consists of three scales: (a) a Survey form (Vineland–S), (b) an Expanded form (Vineland–E), and (c) a Classroom form (Vineland–C). The first two forms use a conversation data-gathering format during interviews with parents or guardians. Norms on children without handicaps are available from birth to 18 years, 11 months, based on a standardization sample of 3,000 cases that were stratified on age, gender, ethnicity, parental education, geographic region, and community size and that were generally consistent with United States Census data. Vineland–E is intentionally longer and more detailed in its collection of information on specific skill deficiencies. This version can contribute to both purposes of measuring adaptive behavior (i.e., diagnosis and planning of supports). Data from reliability and validity studies of Vineland–S are very good, especially in light of the flexible conversation format for obtaining rating information. Vineland–C is appropriate for children aged 3 to 12 years and is completed by the teacher in a relatively brief period of time. Teachers are asked to record when they estimate behaviors so it is not an unknown threat to reliability and validity. Standardization testing of children and adults without disabilities from birth to age 70-plus on a new revision of the Vineland is being conducted at this time.

AAMR ADAPTIVE BEHAVIOR SCALES (ABS)

There are two versions of the ABS: (a) a School and Community version (ABS–S:2) (Lambert, Nihira, & Leland, 1993), and (b) a Residential and Community version (ABS–RC:2) (Nihira et al., 1993). The ABS–S:2 is used to identify students who are significantly below their peers in adaptive functioning for diagnostic purposes

battery. It is a criterion-referenced measure of adaptive living skills that is useful for program planning but would not be appropriate for diagnostic purposes.

COMPREHENSIVE TEST OF ADAPTIVE BEHAVIOR–REVISED

The Comprehensive Test of Adaptive Behavior–Revised (CTAB–R) (Adams, 1999) is used to evaluate the ability to function independently in different environments. Norms that include standardization samples of children, adolescents, and adults in schools, community-based programs, and residential facilities are available for the domains of Self-Help Skills, Home Living Skills, Independent Living Skills, Social Skills, Sensory and Motor Skills, and Language Concepts and Academic Skills. With the current scoring system that does not clearly correspond to the domains of conceptual, practical, and social skills, a total score on CTAB–R would be appropriate for diagnosis of mental retardation.

A Parent or Guardian Survey is available to provide information for any section of the CTAB–R for which the rater (usually teacher) feels additional input is necessary for an accurate response. The rater waits for the Parent or Guardian Survey to be returned before completing these sections. This instrument also contains items that are gender-specific. Specific guidelines are provided in the examiner's manual for testing students with visual, physical, or language disabilities.

ADAPTIVE BEHAVIOR ASSESSMENT SYSTEM

The Adaptive Behavior Assessment System (ABAS) (Harrison & Oakland, 2000) is a new adaptive behavior measure developed by using the 1992 AAMR 10 adaptive skill domains as the a priori domains of adaptive behavior. As shown in Table 5.2, the 10 skill domains from the 1992 definition address the conceptual, practical, and social skill areas in the current definition. Although the ABAS does not provide broader domain scores that are consistent with the three skill areas in the 2002 definition, the use of a total score on the ABAS would be appropriate for diagnostic purposes. Norms are available for children, aged 5 and older, as well as adults. Publication of norms for children from birth to 5 years is expected soon. This measure also has two adult forms, including a self-report and a report by others. Although too new to have been critiqued by users, the ABAS appears to have good psychometric properties and potential for use in the diagnosis of mental retardation.

SUMMARY

In summary, adaptive behavior is the collection of conceptual, social, and practical skills that have been learned by people in order to function in their everyday lives. Throughout this chapter the following aspects of adaptive behavior — as it relates

to assessment and the diagnosis of mental retardation — have been stressed:

- Limitations in adaptive behavior affect both daily life and the ability to respond to life changes and environmental demands.
- Limitations in adaptive behavior should be considered in light of the four other dimensions of the 2002 definition: Intellectual Abilities; Participation, Interactions, and Social Roles; Health; and Context.
- The presence or absence of adaptive behavior can have different relevance, depending on whether it is being considered for purposes of diagnosis, classification, or planning supports.
- For diagnosis, significant limitations in adaptive behavior should be established through the use of standardized measures normed on the general population, including people with disabilities and people without disabilities. On these standardized measures, significant limitations in adaptive behavior are operationally defined as performance that is at least two standard deviations below the mean of either (a) one of the following three types of adaptive behavior: conceptual, social, or practical, or (b) an overall score on a standardized measure of conceptual, social, and practical skills.

CHAPTER 6
DIAGNOSIS AND CLINICAL JUDGMENT

Mental retardation is a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical skills. This disability originates before age 18.

Five assumptions are essential to the application of this definition:

1. **Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture.**
2. **Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors.**
3. **Within an individual, limitations often coexist with strengths.**
4. **An important purpose of describing limitations is to develop a profile of needed supports.**
5. **With appropriate personalized supports over a sustained period, the life functioning of the person with mental retardation generally will improve.**

OVERVIEW

A diagnosis of the presence of mental retardation under the 2002 definition requires a finding that the person's intelligence and adaptive behavior are significantly below average and that the combination was present during the developmental period. Typically this requires the administration of an individualized assessment of intelligence, an individualized assessment of adaptive behavior, and a determination made through review of documents and interviews with relevant observers that

the disability was present before the age of 18.

Making a diagnosis of mental retardation can be challenging in some cases and may require the application of clinical judgment. Clinical judgment is often required when (a) the individual comes from a cultural and/or linguistic background that differs significantly from the mainstream; (b) earlier information is lacking or incomplete; (c) for security or medical reasons, the individual's adaptive behavior functioning cannot be assessed consistent with this 2002 definition and assumptions; (d) standardized assessment procedures are not appropriate because the individual has multiple disabilities, sensory motor limitations, and/or behavioral challenges that limit the use or valid interpretation of standardized instruments; (e) there is a risk of practice effects due to repeated use of the same instrument outside of recommended time intervals; (f) the individual uses a language, dialect, or communication system that differs significantly from that of the instrument's normative populations; (g) the individual is very young and has potentially limited language and/or performance skills; (h) difficulties arise in selecting informants and validating informant observations; (i) direct observation of the individual's actual performance has been limited and additional direct observation is necessary; and (j) difficulties arise when attempting to determine whether the age of onset criterion has been met, which is frequently problematic for older individuals. Each of these situations may require the use of *clinical judgment* to make decisions and/or to integrate the input from an interdisciplinary team whose function is to blend the multidimensional assessment and contextual information.

In addition, certain of the assumptions essential to the application of the 2002 definition of mental retardation anticipate clinical judgment. For example, neither Assumption 1 ("Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture") nor Assumption 2 ("Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors") could be properly addressed without the exercise of competent clinical judgment.

Clinical judgment can be problematic, especially if disconnected from direct observations by trained professionals and relevant testing data. As stated by Salvia and Ysseldyke (1991),

> Judgments represent both the best and worst of assessment data. Judgments made by conscientious, capable, and objective individuals can be an invaluable aid in the assessment process. Inaccurate, biased, subjective judgment can be misleading at best and harmful at worst. (p. 26)

Fortunately, as tools for assessment have improved, and as more individuals with mental retardation have attended school and received increasingly appropriate evaluations during the developmental period, the need for widespread use of clinical judgment in the diagnosis of mental retardation has been reduced.

CLINICAL JUDGMENT DEFINED

Clinical judgment is a special type of judgment rooted in a high level of clinical expertise and experience; it emerges directly from extensive data. It is based on the clinician's explicit training, direct experience with people who have mental retardation, and familiarity with the person and the person's environments. Thus clinicians who have not gathered extensive relevant assessment data should not claim clinical judgment. Clinical judgment should *not* be thought of as a justification for abbreviated evaluations, a vehicle for stereotypes or prejudices, a substitute for insufficiently explored questions, an excuse for incomplete or missing data, or a way to solve political problems. Rather, it should be viewed as a tool of clinicians with training and expertise in mental retardation and ongoing experiences with — and observations of — people with mental retardation and their families.

CLINICAL JUDGMENT GUIDELINES

As discussed in chapters 4 and 5 and summarized in Table 1.1 ("Framework for Assessment"), the function of diagnosis is influenced by a number of factors. The following clinical guidelines, which will enhance any application of clinical judgment, are based primarily on the factors listed in Table 1.1.

1. Ensure a match between the assessment measures used and the evaluation's purpose.
2. Review the appropriateness and psychometric characteristics of the measures selected in terms of the person's age and gender, cultural group, primary language, means of communication, and sensori-motor limitations.
3. Be sensitive to the instrument's stated qualifications needed by the examiner and the examiner's characteristics and potential for bias.
4. Apply the instrument consistent with the directions.
5. Use currently published professional practices and ethical standards.
6. Select informants who know the person well and can give reliable and valid information.
7. Consider, in the interpretation of tests or scales, the individual's opportunities and experiences as they relate to participation, interactions, and social roles.
8. In the interpretation of test scores, be sensitive to physical and mental health factors that influence an individual's behavior.
9. Use members of the interdisciplinary team, including the individual, as partners.

10. Follow the diagnostic guidelines presented in this manual (chaps. 4 & 5) for defining significant limitations in intelligence and adaptive behavior.

The continued recognition of the potential risks and benefits of clinical judgment in this 2002 manual is consistent with cautionary statements, standards, and guidelines found in all the major professional groups concerned with testing (see, e.g., American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999; American Psychiatric Association, 1994; American Psychological Association, 1992, 1999).

SUMMARY

In summary, clinical judgment is a special kind of judgment rooted in a high level of clinical expertise and experience; it emerges directly from extensive data. The use of clinical judgment may be required in a number of situations (e.g., those summarized at the beginning of the chapter) and is also anticipated in at least two of the assumptions essential to the application of the 2002 definition of mental retardation. Although this chapter has been focused on the use of clinical judgment in diagnosis, clinical judgment may also be required in the classification and supports planning functions. Similar emphasis must be placed on competent and thorough analysis that is rooted in data and observation and avoids pitfalls, such as shortcuts and stereotypes.